[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0217; Project Identifier MCAI-2020-01486-A]

RIN 2120-AA64

Airworthiness Directives; Viking Air Limited (Type Certificate Previously Held by Bombardier Inc. and de Havilland, Inc.) Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain Viking Air Limited (type certificate previously held by Bombardier Inc. and de Havilland, Inc.) Model DHC-6-1, DHC-6-100, DHC-6-200, DHC-6-300, and DHC-6-400 airplanes. This proposed AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI identifies the unsafe condition as loose quadrants on the rudder pedal torque tube and signs of loose rivets or rivet joint wear due to inadequate manufacturing tolerances. This proposed AD would require inspecting the rudder pedal torque tube quadrant for looseness and taking corrective action as necessary. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to https://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: (202) 493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Viking Air Ltd., 1959 de Havilland Way, Sidney British Columbia, Canada V8L 5V5; phone: (800) 663-8444; email: continuing.airworthiness@vikingair.com; website: https://www.vikingair.com. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110.

Examining the AD Docket

You may examine the AD docket at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0217; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the MCAI, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Deep Gaurav, Aviation Safety Engineer, New York ACO Branch, FAA, 1515 Stewart Avenue, Westbury, NY 11590; phone: (516) 228-7300; email: deep.gaurav@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2021-0217; Project Identifier MCAI-2020-01486-A" at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to https://www.regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Deep Gaurav, Aviation Safety Engineer, New York ACO Branch, FAA, 1515 Stewart Avenue, Westbury, NY 11590. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

Transport Canada, which is the aviation authority for Canada, has issued Transport Canada AD CF-2020-45R1, dated April 16, 2021 (referred to after this as "the MCAI"), to correct an unsafe condition for Viking Air Limited Model DHC-6 series 1, DHC-6 series 100, DHC-6 series 110, DHC-6 series 200, DHC-6 series 210, DHC-6 series 300, DHC-6 series 310, DHC-6 series 320 and DHC-6 series 400 airplanes, serial numbers 001 through 987. The MCAI states:

> There have been in-service reports of loose quadrants on the rudder pedal torque tube and signs of loose rivets or rivet joint wear, such as dark areas or streaks around the rivet heads and quadrant to torque tube interface. Viking Air Ltd. has determined that inadequate manufacturing tolerances may result in this condition. This defect, if not detected and corrected, could result in the affected parts deteriorating until the rivets fail, leading to loss of control of the rudder and possible loss of control of the aeroplane.

> To detect and correct this condition, [Transport Canada] AD CF-2020-45 mandated a one-time detailed inspection of the rudder pedal torque tube quadrant assembly, and rectification, as required, of the affected parts.
>
> Viking Air Ltd. had published Service Bulletin (SB) V6/0067, Revision NC, dated 16 July 2020, providing Accomplishment Instructions for the one-time detailed inspection for looseness of the affected parts. Since [Transport Canada] AD CF-2020-45 was issued, Viking Air Ltd. has introduced a new rudder pedal torque tube assembly in production that is not subject to the unsafe condition of this [Transport Canada] AD. As a result, Viking Air Ltd. has revised the SB V6/0067 at Revision A, dated 26 January 2021 (referred to as "the SB" in this [Transport Canada] AD) to update the aeroplane serial number applicability.
>
> This [Transport Canada] AD revision, CF-2020-45R1, is issued to modify the aeroplane serial number applicability in accordance with the SB.

You may examine the MCAI in the AD docket at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0217.

Related Service Information under 1 CFR Part 51

The FAA reviewed Viking DHC-6 Twin Otter Service Bulletin V6/0067, Revision A, dated January 26, 2021. This service information specifies procedures for inspecting the rudder pedal torque tube quadrant for looseness and performing a detailed visual inspection of the rudder torque tube assembly for signs of loose rivets or rivet joint wear. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Other Related Service Information

The FAA also reviewed Viking DHC-6 Twin Otter Service Bulletin V6/0067, Revision NC, dated July 16, 2020. This service information specifies procedures for inspecting the rudder pedal torque tube quadrant for looseness and visually inspecting for signs of loose or smoking rivets.

FAA's Determination

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI and service information referenced above. The FAA is issuing this NPRM after determining the unsafe condition described previously is likely to exist

or develop on other products of the same type design.

Proposed AD Requirements in this NPRM

This proposed AD would require accomplishing the actions specified in the service information already described, except as discussed under "Differences Between This NPRM and the MCAI."

Differences Between This NPRM and the MCAI

The MCAI applies to Viking Air Limited Model DHC-6 series 110, DHC-6 series 210, DHC-6 series 310, and DHC-6 series 320, and this proposed AD would not because these models do not have an FAA type certificate. Transport Canada Models DHC-6 series 1, DHC-6 series 100, DHC-6 series 200, DHC-6 series 300, and DHC-6 series 400 airplanes correspond to FAA Model DHC-6-1, DHC-6-100, DHC-6-200, DHC-6-300, and DHC-6-400 airplanes, respectively.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 33 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs

Action	Labor Cost	Parts Cost	Cost per airplane	Cost on U.S. operators
Inspection	1 work-hour x $85 per hour = $85	Not Applicable	$85	$2,805

The FAA estimates the following costs to replace the rudder pedal torque tube quadrant assembly based on the results of the proposed inspection. The agency has no way of determining the number of airplanes that might need this replacement:

On-condition costs

Action	Labor Cost	Parts Cost	Cost per airplane
Rudder pedal torque tube quadrant assembly replacement	10 work-hours x $85 per hour = $850	$9,256	$10,106

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive: **Viking Air Limited (Type Certificate Previously Held by Bombardier Inc. and de Havilland, Inc.)**: Docket No. FAA-2021-0217; Project Identifier MCAI-2020-01486-A.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Viking Air Limited (type certificate previously held by Bombardier Inc. and de Havilland, Inc.) Model DHC-6-1, DHC-6-100, DHC-6-200, DHC-6-300, and DHC-6-400 airplanes, serial numbers 001 through 987, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code 2700, Flight Control System.

(e) Unsafe Condition

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI identifies the unsafe condition as loose quadrants on the rudder pedal torque tube and signs of loose rivets or rivet joint wear due to inadequate manufacturing tolerances. The FAA is issuing this AD to detect and correct loose rivets or rivet joint wear and signs of loose or smoking rivets. The unsafe condition, if not addressed, could result in the rudder pedal torque tube quadrant assembly deteriorating until the rivets fail, leading to loss of rudder control with consequent loss of airplane control.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Action

Within 3 months after the effective date of this AD, inspect the rudder pedal torque tube quadrant assembly for looseness and, if there is any looseness of the rudder pedal torque tube quadrant assembly, a loose rivet, any rivet joint wear, or a smoking rivet, before further flight, repair or replace the rudder pedal torque tube or quadrant assembly. Do these actions by following the Accomplishment Instructions, steps A.1. through A.9., in Viking DHC-6 Twin Otter Service Bulletin No. V6/0067, Revision A, dated January 26, 2021, except for any requirement to obtain repair instructions from Viking Customer Support, the repair must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; Transport Canada; or Viking Air Limited's Transport Canada Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(h) Credit for Previous Actions

You may take credit for the actions required by paragraph (g) of this AD if you performed those actions before the effective date of this AD using Viking DHC-6 Twin Otter Service Bulletin V6/0067, Revision NC, dated July 16, 2020.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the address identified in paragraph (j)(1) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(j) Related Information

(1) For more information about this AD, contact Deep Gaurav, Aviation Safety Engineer, New York ACO Branch, FAA, 1515 Stewart Avenue, Westbury, NY 11590; phone: (516) 228-7300; email: deep.gaurav@faa.gov.

(2) Refer to Transport Canada AD CF-2020-45R1, dated April 16, 2021, for more information. You may examine the Transport Canada AD in the AD docket at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0217.

(3) For service information identified in this AD, contact Viking Air Ltd., 1959 de Havilland Way, Sidney British Columbia, Canada V8L 5V5; phone: (800) 663-8444; email: continuing.airworthiness@vikingair.com; website: https://www.vikingair.com. You may review this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110.

Issued on January 28, 2022.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.
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